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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,790	08/04/2003	Paul Gaudron	056409-5092	5559

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,790

Applicant(s)

GAUDRON, PAUL

Examiner

Katherine W Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/23/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/4/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Examiner notes the excellent search and disclosure of the prior art.

Election/Restrictions

2. Applicant's election without traverse of claims 1-6 and 10-11 in the reply filed on 7/30/2004 is acknowledged. Applicant is reminded that a complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
3. Claims 7-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method of forming, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/30/2004.

Claim Objections

4. Claim 2 is objected to because of the following informalities: Claim 2 discloses "the drywall fastener of claim 1", but claim 1 never discloses drywall. Appropriate correction is required.
5. Claims 10-11 are objected to because of the following informalities: Applicant appears to be claiming all of a group of materials as the frangible material. Examiner believes applicant intends to claim one of the materials of a group, and is examining claim 11 as -- driving the fastener into one of a group consisting of sheet rock, concrete, brick, and block material—and examining claim 10 as – frangible material is one of a group consisting of sheet rock and masonry material—. A Markush Group and its application are discussed in the MPEP Paragraph 2173.05(h).

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Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925).

Ex parte Markush sanctions claiming a genus expressed as a group consisting of certain specified materials. Inventions in metallurgy, refractories, ceramics, pharmacy, pharmacology and biology are most frequently claimed under the Markush formula but purely mechanical features or process steps may also be claimed by using the Markush style of claiming. See Ex parte Head, 214 USPQ 551 (Bd. App. 1981); In re Gaubert, 524 F.2d 1222, 187 USPQ 664 (CCPA 1975); and In re Harnisch, 631 F.2d 716, 206 USPQ 300 (CCPA 1980). It is improper to use the term "comprising" instead of "consisting of." Ex parte Dotter, 12 USPQ 382 (Bd. App. 1931).

The use of Markush claims of diminishing scope should not, in itself, be considered a sufficient basis for objection to or rejection of claims. However, if such a practice renders the claims indefinite or if it results in undue multiplicity, an appropriate rejection should be made.

Similarly, the double inclusion of an element by members of a Markush group is not, in itself, sufficient basis for objection to or rejection of claims. Rather, the facts in each case must be evaluated to determine whether or not the multiple inclusion of one or more elements in a claim renders that claim indefinite. The mere fact that a compound may be embraced by more than one member of a Markush group recited in the claim does not necessarily render the scope of the claim unclear. For example, the Markush group, "selected from the group consisting of amino, halogen, nitro, chloro and alkyl" should be acceptable even though "halogen" is generic to "chloro."

The materials set forth in the Markush group ordinarily must belong to a recognized physical or chemical class or to an art-recognized class. However, when the Markush group occurs in a claim reciting a process or a combination (not a single compound), it is sufficient if the members of the group are disclosed in the specification to possess at least one property in common which is mainly responsible for their function in the claimed relationship, and it is clear from their very nature or from the prior art that all of them possess this property. While in the past the test for Markush-type claims was applied as liberally as possible, present practice which holds that claims reciting Markush groups are not generic claims (MPEP § 803) may subject the groups to a more stringent test for propriety of the recited members. Where a Markush expression is applied only to a portion of a chemical compound, the propriety of the grouping is determined by a consideration of the compound as a whole, and does not depend on there being a community of properties in the members of the Markush expression.

When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper.

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Appropriate correction is required.

6. Claim 10, line 6, "fastener and structure is" should be -- fastener and structure are--.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 depends on claim 10. Claim 10 limits the frangible material to sheet rock and masonry. *ma·son·ry* (mā'sen-rê) *noun*

1. a. The trade of a mason. b. Work done by a mason. c. Stonework or brickwork.¹

Claim 11 broadens the frangible material to include concrete, brick, and block material. Examiner is not sure what applicant intends to claim -- does fastener drive into all 4 materials (see objection above, ruled out by examiner as very unlikely) or is applicant narrowing masonry to include only concrete, brick, and block? In this case, examiner is unsure how masonry can be considered anything other than concrete, brick, and block.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 and 5-6 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bappert USP 3911891.

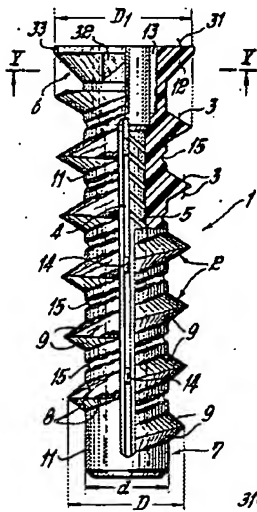


Fig 3 Bappert

11.

Re claims 1,3, and 10-11: Bappert teaches a fastener (1) comprising

- A metal shank (11 in Fig 3; metal col 4 lines 38-40) having an approximate constant diameter (d in Fig 3)
- A helical thread formed on the shank, wherein the ratio of the thread diameter (D) to the shank diameter(d) is at least 1.5 to 1 (col 4 lines 11-25; D:d is approx 3:1; also "D" is described as double "d")
- A helical uneven surface (15 in Fig 3) formed on the shank .

Further Re claim 10: Col 1 lines 58- col 2, line 21, teach the method of supporting a structure using the fastener (screw and sleeve), comprising the steps of:

- Providing said fastener, which is self tapping (col 1 lines 66-68), including a head

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(Fig 3 and frustoconical enlargement (12) at trailing end (6) described in col 4 lines 55-60) and shank (11 in Fig 3; metal col 4 lines 38-40); said shank having a minor diameter (d) and major diameter (D) defined by helical threading on shank, wherein the ratio of the thread diameter (D) to the shank diameter(d) is at least 1.5 to 1 (col 4 lines 11-25; D:d is approx 3:1; also "D" is described as double "d"),

- Driving the fastener into frangible material such that the fastener and structure are supported entirely by the frangible material of sheet rock and masonry. (Gypsum wall taught as material in col 1 lines 8-40, which further disclose no additional support except the wall).

Sheet-rock (shêt'ròk')
A trademark used for plasterboard.

plas-ter-board (plàs'ter-bôrd', -bord') *noun*
A rigid board made of layers of fiberboard or paper bonded to a gypsum plaster core, used instead of plaster or wood panels in construction to form walls. Also called *gypsum board*, *wallboard*.

gypsum board *noun*
See plasterboard.

Further re claim 11: As best understood by examiner, applicant is again claiming sheet rock, which is gypsum board.

Further re claim 3: Bappert teaches a fastener comprising

- a head (12) and
- a shank with a minor diameter (d) and tip (leading end 7)

tip (tip) *noun*

1. The end of a pointed or projecting object.

2. A piece or an attachment, such as a cap or ferrule, meant to be fitted to the end of something else² (all 4 definitions)

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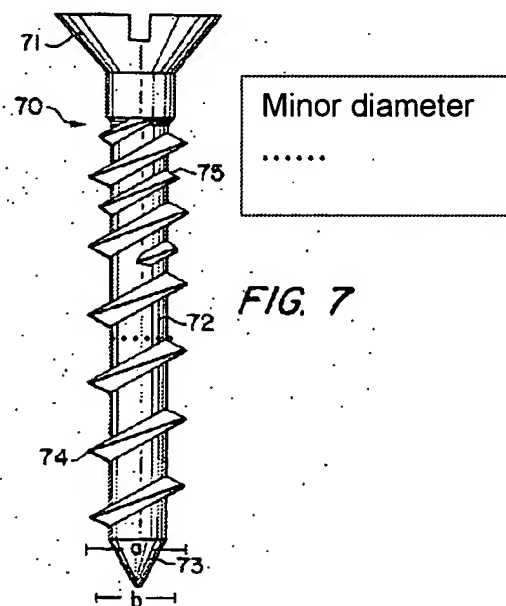
- a first helical threading (2) formed on the shank and having a first diameter (D)
- a second helical threading (15) formed on the shank proximal the head and distal the tip, the second threading having a second diameter that is substantially less than the first diameter. Note the 2nd thread (15) stops short of the tip 7 in Fig 3.

Re claim 2: col 2 lines 39-40 teach a thread pitch of 10 mm, which is 1.0 cm.

Re claim 5: the ratio of the thread first diameter (D) to the shank minor diameter(d) is at least 1.5 to 1 (col 4 lines 11-25; D:d is approx 3:1; also "D" is described as double "d"), and the threads of the first threading are spaced at intervals of between 0.5 to 1.0 cm (col 2 lines 39-40 teach a thread pitch of 10 mm, which is 1.0 cm).

Re claim 6: A helical uneven surface over at least a portion of the shank is considered to be the surface formed by 2nd threads (15) and the shank.

12. Claims 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Laverty



USP 3861269.

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Re claim 3: Lavery teaches a fastener comprising a head (71), a shank having a minor diameter (72) and tip (73), a first helical thread (74) on shank having a first diameter (a) and a second helical threading (75) formed on shank proximal the head (71) and distal the tip (73), the second thread having a second diameter (b) substantially smaller than the first diameter, as shown in Fig 7 and discussed in col 5 line 53-col 6 line 4.

Re claim 4: Fig 7 and col 5 line 53-col 6 line 4 teach the second helical threading extends over less than half the shank length.

Re claim 5: A rough measurement of Fig 7 shows the minor diameter (dotted line by examiner) approximately 5 units, and the first diameter approximately 10 units, or 2:0 to 1. Thread spacing would inherently be between 0.5 and 1.0 cm if the screw were used as a drywall screw as disclosed in col 1 lines 10-12, as approximate measurements of Fig 7 as printed are:

Total length @ 3.5"; Pitch @ 7/16", converting to metric, 1.11 cm. Average drywall screw @ 2", ratio $3.5/2 = 1.11/x$; $x=0.634$ cm

Conclusion

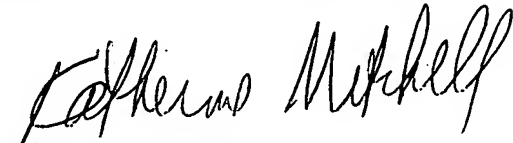
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Katherine W Mitchell
Patent Examiner
Art Unit 3677

Kwm
10/26/2004